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ABSTRACT

The relationship of students' certainty about academic and career plans to student retention and persistence to graduation was investigated. The effect of race was also considered. In fall 1979 a survey was administered to 3,277 freshmen entering a major, public, research university. Respondents indicated reasons for choosing a college, their career and educational plans, and their high school and family background. The survey data were combined with data from the university's student retention file to create a longitudinal database. Yearly updates have recorded each student's retention status and cumulative grade point average through summer 1983. For research purposes, educational maturity was linked to a student's certainty about a college major and career choice. It was found that mature students persisted at a rate slightly lower than the rest of the freshman class. The small group of educationally immature students had a higher retention rate than did the mature students. A corollary finding was that the educationally mature students were more likely to be suspended (primarily for academic ineligibility) than were their more immature peers. Differences in persistence and educational maturity for black and white students were also assessed, with inconclusive results. This research, it is admitted, has not demonstrated the purposes for which it was intended. The relationship between persistence in college, race, and educational maturity remains an intriguing one, however, and future research appears to be indicated. (SW)

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EDUCATIONAL MATURITY, RACE, AND STUDENT PERSISTENCE IN COLLEGE

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THE ASSOCIATION FOR INSTITUTIONAL RESEARCH

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Daniel R. Coleman, Chairman
Forum Publication
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Educational Maturity, Race, and Student Persistence in College

At the 1980 AIR Forum in Atlanta, the authors presented a paper which examined reasons for students choosing to attend a major, public, research university. The major premise was that students who were more certain of their academic and career plans would be more likely to choose a diverse, demanding university, and such was found to be true. Students' race was also considered in the study with the finding that certainty of educational plans (termed, educational maturity) was more important in the decisions of black students to attend the university.

Now that four years have passed since the original study and the students' matriculation, a follow-up study is underway to determine if the variables originally used to determine college choice are equally valuable in an examination of student retention and persistence to graduation. Does certainty of educational plans at the time of entry into college have a relationship to student retention and persistence? Do students who were "educationally mature" (certain of academic major and career plans) when they entered college tend to persist at higher rates than other students? Since earlier research showed that such mature students did tend to be attracted to a major research university, the hypothesis is that educational maturity is positively related to persistence in college.

Another factor addressed in this paper is the effect of race on the aforementioned relationship. Since the 1980 study found that black students were more likely to be educationally mature than white students, the expectation is that the basic relationship between persistence and certainty of educational plans will be heightened for blacks.

The Data

In fall 1979 a survey was administered to 3454 freshmen entering a major, public, research university; 3,277 (94.9%) responded. They were queried about their reasons for choosing a college, their career and educational plans, and their high school and family background. The data from the survey were combined with data from the university's student retention file to create a longitudinal data base. Yearly updates have recorded the students' retention status and cumulative grade point average through summer 1983. The study is intended to run for a total of ten years.

Educational maturity, which is the major dependent variable, is defined through a combination of students' responses to two questions on the 1979 survey. The questions and possible responses were:

At this time, have you decided on your major field of study?

1. Yes, feel very certain about my choice of major.
2. Yes, but am unsure about my choice.
3. No, have no idea what to major in.

Do you have a particular career plan or occupational goal in mind at this time?

1. Yes.
2. No.

Those freshmen responding "Yes" I am sure . . . " to the first question and "Yes" to the second were classified as educationally mature while those responding "No" to both questions were viewed as educationally immature. Fitting these operational definitions were 975 students classified as mature (29.8% of the respondents) and 329 classified as educationally immature (10% of respondents). Please note that the use of the term, maturity, implies no relation to the students' level of social development or maturity.

Results and Discussion

The comparison of retention rates for educationally mature students and the remainder of the student body showed, rather surprisingly, that mature students actually persisted at a rate slightly lower (71.9% still enrolled or graduated after four years versus 75.7%) than the rest of the freshman class. The small group of educationally immature students had an even higher retention rate of 79.4% (Table II) which leads one to believe that the initial premise of this paper has no support at all. One may wonder, in fact, if the results do not suggest that the university environment, while attractive to serious prospective students, is actually more conducive to the success of less committed or educationally immature students. The university in the study prides itself on maintaining a strong liberal arts flavor and, while professional progams are not banned from the campus, the academic emphasis definitely is on breadth of study rather than depth. Perhaps the educationally immature student

tends to thrive in this atmosphere, as evidenced by the retention rates, while the more vocational or career-minded student finds it less nurturing.

A corollary finding shows that the educationally mature students are more likely to be suspended (primarily for academic ineligibility) than their peers--11.6% versus 4.4% for the immature group. This finding held without regard for sex or race of students and appears to offset the difference in overall retention rates since there is no particular difference in rates of voluntary withdrawal from the university among the groups.

In examining the effects of race upon the relationship between educational maturity and persistence in college, Table I shows the overall rates for black students (rows one and two combined) as 50% while that of white students is 78.3%. Black mature students, from Table III, show an overall retention rate after four years of nearly 49% (34.37% had graduated in row one and 14.7% were still enrolled in row two); but, the rate for the group of immature black students shows as 66.7% in Table IV. Comparable figures for white students are 76.7% for the mature group and 80.6% for the immatures; remember that a large group remains in the middle between these two maturity classifications.

Applying these figures to our second hypothesis, one finds both support and, yet, lack of support. First, there is no support since the hypothesis predicted higher retention or persistence rates for black mature students and this was not found. Second, however, the hypothesis did predict that the effects of race would heighten the relationship from the first

hypothesis, and this was found even though the relationship turned out to be in a direction different from that initially hypothesized.

Finally, in a quick review of the major findings from a number of regression analyses on retention status, one sees in Table V that the primary relationship is through race and that educational maturity, while statistically significant, does not noticeably increase R Square (0.064 to 0.069).

Summary

As one ponders a moment about the importance of this research, one wonders if the faint sounds of the victory chimes for the traditional liberal arts can be heard in the distance. If educationally mature students, and the term is not used with great precision, are seen as more vocationally-oriented or career-minded or, vaguely, as epitomizing the anti liberal arts sentiments of the past decade, then can we infer by any strength of reason that their lesser rate of persistence signifies a failure of any kind of that pragmatic, vocational philosophy? Or should one stick to safer grounds and explain away the findings as indicative of what would happen normally to a career-oriented student who attends a liberal arts oriented university?

One also wonders, particularly if one looks briefly at Table VI and VII, if part of the difference between persistence rates of educationally mature and immature students may be due to differing educational plans. Table VII shows 44% of the immature group planning for a bachelor's degree (as freshmen in 1979)

versus 32% of the mature group in Table VI, and 17% of the immature group planning for a professional or doctoral degree versus nearly 40% of the mature group. In their eagerness to arrive at a career and to begin life after education, did the mature group look too far ahead? Or, as we diehard basketball fans in the ACC like to say, did the player drive for the easy basket before firmly catching the ball?

In conclusion this research has not demonstrated the purposes for which it was intended and the authors, quite honestly, are not quite sure of its meaning if any. The relationship between persistence in college, race, and educational maturity remains intriguing, nevertheless, and future research appears indicated.

Table I

SAS

TABLE OF RETSTAT BY RACE

RETSTAT '83 RETENTION STATUS' RACE

FREQUENCY / PERCENT / ROW PCT / COL PCT	BLACK	OTHER	WHITE	TOTAL
GRADUATED	144 4.43 7.73 37.31	20 0.61 1.07 33.90	1699 52.23 91.20 60.51	1863 57.27
ENROLLEDD	49 1.51 8.72 12.69	13 0.40 2.31 22.03	500 15.37 88.97 17.81	562 17.28
WITHDRAWN	67 2.06 12.81 17.36	18 0.55 3.44 30.51	438 13.46 83.75 15.60	523 16.08
SUSPENDED	126 3.87 41.31 32.64	8 0.25 2.62 13.56	171 5.26 56.07 6.09	305 9.38
TOTAL	386 11.87	59 1.81	2808 86.32	3253 100.00

TABLE II

SAS

TABLE OF EDMATURE BY RETSTAT

EDMATURE RETSTAT '83 RETENTION STATUS

FREQUENCY / PERCENT / ROW PCT / COL PCT	GRADUATED	ENROLLED	WITHDRAWN	SUSPENDED	TOTAL
.	128 . . .	328 . . .	304 . . .	173 . . .	. .
IMMATURE	199 15.78 62.97 27.83	52 4.12 16.46 23.53	51 4.04 16.14 25.37	14 1.11 4.43 11.29	316 25.06
MATURE	516 40.92 54.60 72.17	169 13.40 17.88 76.47	150 11.90 15.87 74.63	110 8.72 11.64 88.71	945 74.94
TOTAL	715 56.70	221 17.53	201 15.94	124 9.83	1261 100.00

TABLE III SAS

TABLE OF RETSTAT BY RACE
CONTROLLING FOR EDMATURE=MATURE

RETSTAT '83 RETENTION STATUS RACE

FREQUENCY / PERCENT / ROW PCT / COL PCT	BLACK	WHITE	TOTAL
GRADUATED	49 5.19 9.50 34.27	467 49.42 90.50 58.23	516 54.60
ENROLLED	21 2.22 12.43 14.69	148 15.66 87.57 18.45	169 17.88
WITHDRAWN	23 2.43 15.33 16.08	127 13.44 84.67 15.84	150 15.87
SUSPENDED	50 5.29 45.45 34.97	60 6.35 54.55 7.48	110 11.64
TOTAL	143 15.13	802 84.87	945 100.00

TABLE IV SAS

TABLE OF RETSTAT BY RACE
CONTROLLING FOR EDMATURE=IMMATURE

RETSTAT '83 RETENTION STATUS RACE

FREQUENCY / PERCENT / ROW PCT / COL PCT	BLACK	WHITE	TOTAL
GRADUATED	12 3.80 6.03 44.44	187 59.18 93.97 64.71	199 62.97
ENROLLED	6 1.90 11.54 22.22	46 14.56 88.46 15.92	52 16.46
WITHDRAWN	3 0.95 5.88 11.11	48 15.19 94.12 16.61	51 16.14
SUSPENDED	6 1.90 42.86 22.22	8 2.53 57.14 2.77	14 4.43
TOTAL	27 8.54	289 91.46	316 100.00

TABLE V

STEPWISE REGRESSION PROCEDURE FOR DEPENDENT VARIABLE RETSTAT

WARNING: 1933 OBSERVATIONS DELETED DUE TO MISSING VALUES.

STEP 1 VARIABLE WHITE ENTERED R SQUARE = 0.06387055 C(P) = 8.25508764

	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	1	86.60137793	86.60137793	85.90	0.0001
ERROR	1259	1269.28759907	1.00817125		
TOTAL	1260	1355.88897700			

	B VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	2.45294118				
WHITE	-0.76733164	0.08279190	86.60137793	85.90	0.0001

STEP 2 VARIABLE EDMATURE ENTERED R SQUARE = 0.06923840 C(P) = 3.00000000

	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	2	93.87958836	46.93979418	46.79	0.0001
ERROR	1258	1262.00938864	1.00318711		
TOTAL	1260	1355.88897700			

	B VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	2.30495531				
WHITE	-0.74867085	0.08287708	81.86437735	81.60	0.0001
EDMATURE	0.17592726	0.06531483	7.27821043	7.26	0.0072

NO OTHER VARIABLES MET THE 0.1500 SIGNIFICANCE LEVEL FOR ENTRY INTO THE MODEL.

TABLE VI TABLE OF EDPLAN BY RACE
CONTROLLING FOR EDMATURE=MATURE

EDPLAN EDUCATION PLANNED RACE

FREQUENCY PERCENT ROW PCT COL PCT	BLACK	WHITE	TOTAL
< BACHELOR'S	0 . . .	0 . . .	0 0.00
BACHELOR'S	31 3.28 10.33 21.68	269 28.47 89.67 33.54	300 31.75
MATSER'S	47 4.97 18.22 32.87	211 22.33 81.78 26.31	258 27.30
1ST PROFESSIONAL	39 4.13 16.25 27.27	201 21.27 83.75 25.06	240 25.40
DOCTORAL	25 2.65 18.52 17.48	110 11.64 81.48 13.72	135 14.29
INVALID RESPONSE	1 0.11 8.33 0.70	11 1.16 91.67 1.37	12 1.27
TOTAL	143 15.13	802 84.87	945 100.00

TABLE VII TABLE OF EDPLAN BY RACE
CONTROLLING FOR EDMATURE=IMMATURE

EDPLAN EDUCATION PLANNED RACE

FREQUENCY PERCENT ROW PCT COL PCT	BLACK	WHITE	TOTAL
< BACHELOR'S	1 0.32 33.33 3.70	2 0.63 66.67 0.69	3 0.95
BACHELOR'S	12 3.80 8.70 44.44	126 39.87 91.30 43.60	138 43.67
MATSER'S	8 2.53 7.92 29.63	93 29.43 92.08 32.18	101 31.96
1ST PROFESSIONAL	1 0.32 3.23 3.70	30 9.49 96.77 10.38	31 9.81
DOCTORAL	3 0.95 13.64 11.11	19 6.01 86.36 6.57	22 6.96
INVALID RESPONSE	2 0.63 9.52 7.41	19 6.01 90.48 6.57	21 6.65
TOTAL	27 8.54	289 91.46	316 100.00

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